

Translation

PATENT COOPERATION TREATY

PCT/JP2003/004681



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 663777	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/004681	International filing date (day/month/year) 14 April 2003 (14.04.2003)	Priority date (day/month/year) 15 April 2002 (15.04.2002)
International Patent Classification (IPC) or national classification and IPC A01H 1/00, C12N 15/09		
Applicant PHYTOCULTURE CONTROL CO., LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of _____ sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 05 November 2003 (05.11.2003)	Date of completion of this report 13 February 2004 (13.02.2004)
Name and mailing address of the IPEA/JP Facsimile No.	Authorized officer Telephone No.

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I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the claims:
 pages _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item I and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-15	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-15	NO
Industrial applicability (IA)	Claims	1-15	YES
	Claims		NO

2. Citations and explanations

Document 1: WO 00/63400 A (The Samuel Roberts Noble Foundation), 26 October 2000

Document 2: Tatsuo Akai et al., "Takou-shitsu ceramic board ni yoru shokubutsu saibaihou," *SHITA Rep.*, no. 14, pages 34-47 (1998)

(1) Claims 1 to 13.

The invention described in claims 1 to 13 does not involve an inventive step in the light of documents 1 and 2 cited in the international search report.

Document 1 discloses a feature wherein a plant cultivated in a pot containing soil is transformed using an in planta method of immersing the plant in a carrier solution holding a gene for the transformation, and a feature wherein if soil seems likely to fall out of the pot when it is being immersed, the pot is wrapped in fabric or the like in order to prevent the soil from falling out. Document 2 discloses a method for cultivating a plant wherein water and nutrients are provided to the surface of a microporous material in which seeds are germinated and grown.

The invention disclosed in document 1 addresses the problem of soil falling out of a pot, and applying the non-soil cultivation method disclosed in document 2 as a

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means of solving said problem instead of holding loose soil in place with fabric or the like is not recognized as presenting any particular difficulty. Moreover, a person skilled in the art could easily predict the effect of doing so in the light of the disclosures in documents 1 and 2.

(2) Claims 14 and 15

The invention described in claims 14 and 15 does not involve an inventive step in the light of documents 1 and 2 cited in the international search report.

As discussed in item (1), a person skilled in the art could easily conceive of applying the non-soil cultivation method disclosed in document 2 to the in planta method disclosed in document 1, and thus, applying said non-soil cultivation method during a selection stage for plant transformation also falls within the range of features of which a person skilled in the art could easily conceive. Moreover, a person skilled in the art could easily predict the effect of doing so in the light of the disclosures in documents 1 and 2.